

**Department of Environmental Conservation
Response to Comments**

For

APDES Individual Permit

AK0055921– Oil Search (Alaska), LLC, Seawater Treatment Plant

Public Noticed December 28, 2021 – January 28, 2022

Month DD, 2022



**Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501**

1 Introduction

1.1 Summary of Facility / Permit

Oil Search (Alaska), LLC (OSA) proposes to construct a seawater treatment plant (STP) located on the North Slope at Oliktok Point, at the western end of Simpson Lagoon and the eastern side of Harrison Bay in the Beaufort Sea. The STP functions as a treatment and distribution point for water flood used for enhanced reservoir oil recovery.

The Alaska Department of Environmental Conservation (Department or DEC) is issuing Alaska Pollutant Discharge Elimination System (APDES) Permit AK0055921 – OSA Seawater Treatment Plant (Permit). The Permit authorizes discharges of Strainer/Filter Backwash (Outfall 001). The Permit imposes limits for pH, temperature differential, and total residual chlorine as well as monitoring requirements for flow and chronic whole effluent toxicity at Outfall 001. The Permit also requires the permittee to develop specific Best Management Practices for optimization the use of cleaning chemicals and waterflood pipeline drain back. The Permit has also authorized a chronic mixing zone for temperature, total residual chlorine, pH, whole effluent toxicity, and salinity as well as an acute mixing zone for total residual chlorine.

1.2 Opportunities for Public Participation

The Department of Environmental Conservation (DEC or Department) proposes to issue the Permit after considering all substantive public comments. To ensure participation by the public, agencies, and tribal and local governments during Permit reissuance, the Department:

- identified the permit on the annual Permit Issuance Plan posted online at: <http://www.dec.state.ak.us/water/wwdp/index.htm>;
- notified potentially affected tribes that the Department would be working on the Permit via letter, fax and/or email on July 27, 2021.
- posted the Preliminary Draft Permit on-line for a 10-day applicant review on December 9, 2021 and notified tribes, local governments and other agencies;
- published public notice(s) in the Arctic Sounder on January 4, 2022.
- published public notice(s) in the Anchorage Daily News on December 31, 2021 and January 2, 2022.
- posted the public notice on the Department's public notice web page December 28, 2021 for a 30-day public review on the Draft Permit and Fact Sheet;
- posted the Proposed Final Permit on-line for a five-day applicant review on February 22, 2022; and
- sent email notifications via the APDES Program List Serve when the Preliminary Draft, Draft, and Proposed Final Permits were available for review.

The Department requested comments on the Preliminary Draft documents from OSA, Environmental Protection Agency (EPA), National Marine Fishery Services (NMFS), United States Fish and Wildlife Service (USFWS), and State agencies including, but not limited to, the Alaska Departments of Fish and Game and Natural Resources. Only OSA provided comments on the Preliminary Draft Permit and Fact Sheet during the 10-day applicant review. Similarly, during the 30-day public review period, the Department received comments on the Draft Permit and Fact Sheet only by OSA.

This document summarizes the comments submitted during the public review period of the Draft Permit and the justification for any action taken or not taken by DEC in response to each comment.

1.3 Final Permit

The final permit was adopted by the Department on [TBD]. There were minor changes from the Draft Permit and Fact Sheet after public notice to correct typographical and grammatical errors and to clarify information. Changes resulting from an outgrowth of comments received are identified in this response to comments (RTC) and reflected in the Final Permit and Fact Sheet.

2 Comments Summary

2.1 Comments by OSA

The Department received comments from OSA during the 30-day applicant review on January 28, 2022 and the Department revised the Permit documents to address these comments. OSA comments from the applicant review period are summarized and responded to in the following paragraphs.

2.1.1 OSA Identifies Minor Editorial Corrections

1. Draft Fact Sheet Section 2.2.1 Outfall 001 – Strainer/Filter Backwash Description, eighth paragraph “T” should be changed to “The.”
2. Draft Fact Sheet Section 2.2.1 Outfall 001 – Strainer/Filter Backwash Description, last paragraph “Department provide” should be changed to “Department to provide.”
3. Draft Fact Sheet Section 6.3.2.1 – Tier 2 Alternatives Analysis, Site Location Alternatives “Oliktok point” should be changed to “Oliktok Point.”
4. Draft Fact Sheet Section 6.3.2.1 – Tier 2 Alternatives Analysis, Most Effective and Practicable Treatment Alternatives first sentence the abbreviation (UF) should be added after ultrafiltration and (NF) after nanofiltration.
5. Draft Fact Sheet Section 6.3.2.1 – Tier 2 Alternatives Analysis, Most Effective and Practicable Treatment Alternatives second sentence says “Although microfiltration and UF membranes...” and suggests that “microfiltration and” be removed and “and NF” inserted after UF.
6. Draft Permit Section 3.2.5.2 Waterflood Pipeline Drain back, 4th sentence “removel” should be changed to “removal.”

DEC Response: DEC concurs with OSA’s suggested corrections and has made all requested corrections in the Final Permit and Fact Sheet as described below with the new text shown underlined, in bold and deletions in strike-out:

1. “The membrane backwash...”
2. “The permittee must submit information necessary for the Department to provide...”
3. “However, the proposed location at Oliktok pPoint...”
4. Several modifications to the referenced acronyms in the Draft Fact Sheet resulted as an outgrowth of number 4. The Department updated the Draft Fact Sheet such that the acronyms for ultrafiltration and nanofiltration were defined at the first occurrence and used in subsequent references. The modifications made as an outgrowth of this comment are:

- a. Fact Sheet Section 2.2.1 Outfall 001 – Strainer/Filter Backwash Description, first paragraph: “However, the OSA STP will use membrane ultrafiltration (UF) and nanofiltration **NF** ...”
 - b. Fact Sheet Section 2.2.1 Outfall 001 – Strainer/Filter Backwash Description, fifth paragraph: “The remaining filtrate from the fine filters is treated further using seven ~~ultrafiltration (UF)~~ membrane...”
 - c. Draft Fact Sheet Section 6.3.2.1 – Tier 2 Alternatives Analysis, Most Effective and Practicable Treatment Alternatives first sentence: “The most effective and practicable treatment alternative for the OSA STP is intake water screening, straining, and ~~ultrafiltration~~ **UF** followed by ~~nanofiltration~~ **NF**.”
5. “Although ~~microfiltration and~~ UF **and NF** membranes”
 6. “If any emergency circumstance prevents ~~remove~~ **removal** of...”